

REMARKS

In response to the Final Office Action mailed September 19, 2005, Applicants respectfully request reconsideration. Claims 1-20 were previously pending in this application. Claims 1 and 8-20 have been amended. As a result, claims 1-20 are pending for examination with claims 1, 8, and 16 being independent claims. No new matter has been added.

Objections to the Drawings

The Office Action objected to Fig. 2 because Fig. 2 did not include the legend "Prior Art." A replacement sheet is enclosed wherein Fig. 2 has been amended to include the legend "Prior Art." Accordingly, withdrawal of this objection is respectfully requested.

Allowable Subject Matter

Applicants note with appreciation the indication of allowable subject matter in claim 4.

Objections Under 35 U.S.C. §102

The Office Action rejected claims 1-3 and 5-20 under 35 USC 102(b) as being anticipated by Tang (U.S. 6,483,415), Väisänen (U.S. 6,018,277) and Ojha et al. (Reduce Size RF Coupler Design For Specialized Load Requirements). Applicants respectfully traverse these rejections.

Tang shows a multilayer LC resonant ballun having two capacitors 403 and 404 coupled to coupled lines 401a and 401b, respectively. One end of coupled line 401a is coupled to ground 777 through transmission line 411b. Ballun 400 may be used to convert signals between an unbalanced circuit structure and a balanced circuit structure (Col. 1, lines 12-20).

Väisänen shows (Fig. 1a) a high frequency strip line transformer having a structure similar to the LC resonant ballun of Tang. The left side of Fig. 1a illustrates that one line is connected to an asymmetric port and a ground port. The right side of Fig. 1a illustrates that another line is connected to two symmetric ports.

Ojha et al. illustrates (Fig. 2) an RF coupler having a similar structure to the Tang and Väisänen balluns. Fig. 2 of Ojha et al. shows a first capacitor coupled to two ends (ports 2 and 3) of

a first conductive line and a second capacitor coupled to two ends (port 1 and ground) of the second conductive line.

By contrast, claim 1 as amended recites, *inter alia*, a directional distributed coupler... the second conductive line being coupled to the first conductive line such that the first terminal provides a first signal that is a function of a magnitude of the main signal flowing in a first direction on the first conductive line, and the second terminal provides a second signal that is a function of a magnitude of the main signal flowing in a second direction on the first conductive line. Neither Tang, Väisänen nor Ojha teaches or suggests a second conductive line coupled to a first conductive line such that the first terminal provides a first signal that is a function of a magnitude of the main signal flowing in a first direction on the first conductive line, and the second terminal provides a second signal that is a function of the magnitude of the main signal flowing in a second direction on the first conductive line. Therefore, claim 1 patentably distinguishes over Tang, Väisänen and Ojha. Accordingly, withdrawal of this rejection is respectfully requested.

Claims 2-7 depend from claim 1 and are therefore patentable for at least the same reasons.

Claim 8 as amended recites, *inter alia*, a distributed coupler... the second conductive line being coupled to the first conductive line such that the third terminal provides a first coupled signal that is a function of a magnitude of the signal flowing in a first direction on the first conductive line, and a fourth terminal provides a second coupled signal that is a function of a magnitude of the signal flowing in a second direction on the first conductive line. Neither Tang, Väisänen nor Ojha teaches or suggests the second conductive line being coupled to the first conductive line such that the third terminal provides a first coupled signal that is a function of a magnitude of the signal flowing in a first direction on the first conductive line, and a fourth terminal provides a second coupled signal that is a function of a magnitude of the signal flowing in a second direction on the first conductive line. Therefore, claim 8 patentably distinguishes over Tang, Väisänen and Ojha. Accordingly, withdrawal of this rejection is respectfully requested.

Claims 9-15 and 20 depend from claim 8 and are therefore patentable for at least the same reasons.

Claim 16 as amended recites, *inter alia*, a distributed coupler... wherein the first conductive line is sized in $\lambda/4$ for a central band frequency greater than a frequency band for which the

distributed coupler is intended. Neither Tang, Väisänen nor Ojha teaches or suggests a first
conductive line is sized in $\lambda/4$ for a central band frequency greater than a frequency band for which
the distributed coupler is intended. Therefore, claim 16 patentably distinguishes over Tang,
Väisänen and Ojha. Accordingly, withdrawal of this rejection is respectfully requested.

Claims 17-19 depend from claim 16 and are therefore patentable for at least the same
reasons.

Conclusion

A Notice of Allowance is respectfully requested. The Examiner is requested to call the undersigned at the telephone number listed below if this communication does not place the case in condition for allowance.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 23/2825.

Dated: February 21, 2006

Respectfully submitted,

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AMENDMENTS TO THE DRAWINGS

A “Replacement Sheet” is attached which includes a clean version of amended FIG. 2. The attached sheet replaces the original sheet including FIGS. 1-4. FIG. 2 has been amended to include the legend – Prior Art –, as requested in the Office Action.